

Medium Phantom – Grace Period Guidance

In June 2021, the Medium ACR MRI phantom was approved for accreditation. The medium phantom release will coincide with the release of the new accreditation database, ACReditPlus. This phantom was developed specifically for use in modern phased array head coils which typically have smaller open volumes than quadrature head coils. The Medium ACR MRI phantom enables sites to acquire phantom images for accreditation and for quality control (QC) with the same coil that is used to acquire most clinical brain images. This also eliminates the extra handling of MR coils in order to conduct required technologist QC.

With the approval of the medium phantom sites must submit phantom images acquired using a head coil routinely used for clinical brain imaging on the scanner, and must use the largest phantom that fits inside that head coil. Facilities with scanners that do not have a head coil and/or do not routinely perform brain imaging should use the small phantom in the knee coil to obtain phantom images for accreditation review. This affects accreditation phantom submission and weekly QC.

A grace period lasting for 18 months will begin on the day of ACReditPlus release.

1. Accreditation (initial, reinstate and renewal) Starting on date of release of ACReditPlus and up to 18 months following:
 - a. Scanners currently using large phantom inside their routine clinical brain coil there is no change to phantom size or images submitted for accreditation.
 - b. Scanners where the clinical brain coil is too small for the large phantom, sites will need to submit images obtained with the medium phantom in their routine clinical brain coil. **There is a 18-month grace period from the date of ACReditPlus release to make this change.** If the application/renewal date is within the next year and prior to the end date of the grace period, sites can either submit large phantom images as they have in the past or submit medium phantom images obtained in the routine clinical brain coil.
 - c. Facilities with scanners that do not have a head coil and/or do not routinely perform brain imaging should use the small phantom in the knee coil to obtain phantom images for accreditation review.
 - d. Post 18-months ACReditPlus release date all sites must submit phantom images acquired using a head coil *that is routinely used* for clinical brain imaging on the scanner, and must use the largest phantom that fits inside that head coil.
2. Weekly Technologist Quality Control: As stated in the MR QC Manual page 23: *The procedures described here for weekly QC were written specifically for the ACR phantoms. The decision to use an alternative phantom should be made by the qualified MRI physicist/scientist.* Ultimately the choice of phantom to use for weekly technologist QC (large or medium) in a brain coil is up to the qualified MRI physicist/scientist. However, the ACR strongly recommends using the ACR phantom that fits in the head coil routinely used for clinical brain imaging, which will typically be the same phantom/coil combination used to acquire images for accreditation.